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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,203	12/31/2003	Camille Borer	004640-042	6724
21839	7590	01/24/2006	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			ROBERTSON, JEFFREY	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/748,203

Applicant(s)

BORER ET AL.

Examiner

Jeffrey B. Robertson

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-18, 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 5, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Carr et al., Polymer, Vol. 37, No. 12, pp 2395-2401, 1996, is cited as an X reference on the international search report. However, this reference fails to teach or suggest the subject matter of the instant claims. Specifically, for claim 1, the reference teaches blending of polyesters and hyperbranched polymers without melt mixing or solid phase post-condensation. For claim 18, Carr does not teach or suggest the additive package as claimed. There are no further additives added to the blends of Carr. Likewise, Jang et al., Macromolecules, 2000, 33, 1864-1870 is cited as an X reference, but does not teach or suggest the present claims for the same reasons as set forth above with respect to the Carr et al. reference. DE 199 05 877 is also listed as an X reference, but the reference does not appear to teach hyperbranched polymers in combination with additives as a package.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 5, there is a lack of antecedent basis in the term "the reactive end groups". Claim 1 does not set forth the presence of reactive end groups in the HBP.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by de Brabander-van den Berg et al. (U.S. Patent No. 5,998,565).

The reference teaches hyperbranched polymers containing functional groups as additives for plastic compositions in col. 1, lines 42-51 and col. 2, line 35. In col. 5, lines 8-34, the reference teaches that further additives such as fillers and stabilizers are added to the hyperbranched polymers. For claim 20, the reference teaches that acid groups, i.e. carboxyl groups are the functional groups of the hyperbranched polymer. Col. 3, lines 54-57.

6. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sorensen et al. (WO 97/45474).

For claims 19 and 20, Sorensen teaches hyperbranched polymers having functional groups such as hydroxyl, carboxyl, or anhydride groups as additives. See the paragraph bridging pages 4 and 5, and the first full paragraph on page 6. In the first full

paragraph on page 16, Sorensen teaches the addition of a filler to the additive composition.

7. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Aharoni (U.S. Patent No. 5,480,944).

Aharoni teaches hyperbranched polymers with hydroxyl functional groups containing further additives such as fillers and stabilizers. See col. 13, lines 40-48 and col. 2, lines 15 and 35-40.

8. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Vicari et al. (U.S. Patent No. 5,362,843).

Vicari teaches highly branched polymers that are combined with additives such as fillers and stabilizers in col. 8, lines 7-15. Regarding claim 20, in col. 3, lines 9-67, Vicari teaches that the branching monomers contain hydroxyl and carboxyl groups. The examiner's position is that some of these functional groups would be present after the formation of the hyperbranched polymer.

9. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mhetar (U.S. Patent No. 6,497,959, this patent corresponds to the priority document of Snyder (WO 01/74946 A1), cited as an X reference, but published after the priority document of the instant application).

Snyder teaches hyperbranched polymer additives in col. 2, lines 42-44. In col. 3, lines 60-67, Snyder teaches the presence of further additives that include stabilizers. In Figure 1, Snyder teaches the presence of hydroxyl groups on the hyperbranched polymers.

***Allowable Subject Matter***

10. Claims 1-4, 6-18, 21 and 22 are allowed. The above-applied references are the closest prior art. Although these references teach blending the additive compositions with polyesters, none of these references teaches or suggests the method of claim 1, where a polyester is melt blended and then subjected to a solid phase post-condensation.

11. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

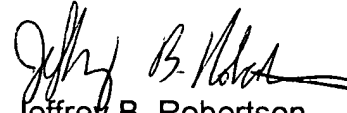
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cincotta et al. (U.S. Patent No. 4,408,022) is cited for general interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeffrey B. Robertson  
Primary Examiner  
Art Unit 1712

JBR